

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A semiconductor device comprising:
 - a first semiconductor element including at least one thin film transistor;
 - a second semiconductor element including at least one thin film transistor;
 - a first insulating film and a second insulating film formed between the first semiconductor element and the second semiconductor element;
 - a resin film formed between and in contact with the first ~~semiconductor element~~ insulating film and the second ~~semiconductor element~~ insulating film;
 - a light emitting element electrically connected to the first semiconductor element;
 - and
 - a light receiving element electrically connected to the second semiconductor element,
- wherein the first semiconductor element and the second semiconductor element are stacked with the ~~interlayer~~ first insulating film, the second insulating film, and the resin film interposed therebetween,
- wherein a signal is transmitted and received between the first semiconductor element and the second semiconductor element by using the light emitting element and the light receiving element,
- wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and
- wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

2. (Currently Amended) A semiconductor device comprising:

a first semiconductor element including at least one thin film transistor;

a second semiconductor element including at least one thin film transistor;

a resin film formed between the first semiconductor element and the second semiconductor element;

an insulating film formed between the first semiconductor element and the second semiconductor element;

a metal oxide partially formed between the first semiconductor element and the second semiconductor element wherein the resin film is interposed between the insulating film and the metal oxide; and

a light emitting element electrically connected to the first semiconductor element;
and

a light receiving element electrically connected to the second semiconductor element,

wherein the first semiconductor element and the second semiconductor element are stacked,

wherein a signal is transmitted and received between the first semiconductor element and the second semiconductor element by using the light emitting element and the light receiving element,

wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and

wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

3. (Currently Amended) A semiconductor device comprising:

a first semiconductor element including at least one thin film transistor;

a second semiconductor element including at least one thin film transistor;
a first insulating film and a second insulating film formed between the first semiconductor element and the second semiconductor element;

a resin film formed between and in contact with the first ~~semiconductor element~~
insulating film and the second ~~semiconductor element~~ insulating film;

a light emitting element electrically connected to the first semiconductor element;
and

a light receiving element electrically connected to the second semiconductor element,

wherein the first semiconductor element and the second semiconductor element are stacked with the ~~interlayer~~ first insulating film, the second insulating film, and the resin film interposed therebetween,

wherein a first electric signal is converted to an optical signal in the light emitting element,

wherein the optical signal is converted to a second electric signal in the light receiving element,

wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and

wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

4. (Currently Amended) A semiconductor device comprising:

a first semiconductor element including at least one thin film transistor;

a second semiconductor element including at least one thin film transistor;

a resin film formed between the first semiconductor element and the second semiconductor element;

an insulating film formed between the first semiconductor element and the second semiconductor element;

a metal oxide partially formed between the first semiconductor element and the second semiconductor element wherein the resin film is interposed between the insulating film and the metal oxide;

a light emitting element electrically connected to the first semiconductor element;
and

a light receiving element electrically connected to the second semiconductor element,

wherein the first semiconductor element and the second semiconductor element are stacked,

wherein a first electric signal is converted to an optical signal in the light emitting element,

wherein the optical signal is converted to a second electric signal in the light receiving element,

wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and

wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

5. (Currently Amended) A semiconductor device comprising:

a first semiconductor element and a second semiconductor element each including at least one thin film transistor stacked by transferring a semiconductor element formed over a different substrate;

a first insulating film and a second insulating film formed between the first semiconductor element and the second semiconductor element;

a resin film formed between and in contact with the first ~~semiconductor element~~
insulating film and the second ~~semiconductor element~~ insulating film;

~~an interlayer insulating film formed between the first semiconductor element and
the resin film;~~

a light emitting element electrically connected to the first semiconductor element;
and

a light receiving element electrically connected to the second semiconductor
element,

wherein a first electric signal is converted to an optical signal in the light emitting
element,

wherein the optical signal is converted to a second electric signal in the light
receiving element,

wherein the light emitting element comprises a first electrode, a second
electrode, and an electro-luminescent layer formed between the first electrode and the
second electrode, and

wherein the first electrode, the electro-luminescent layer, and the second
electrode are overlapped each other.

6. (Currently Amended) A semiconductor device comprising:

a first semiconductor element and a second semiconductor element each
including at least one thin film transistor stacked by transferring a semiconductor
element formed over a different substrate;

a resin film formed between the first semiconductor element and the second
semiconductor element;

an insulating film formed between the first semiconductor element and the
second semiconductor element;

a metal oxide partially formed between the first semiconductor element and the second semiconductor element wherein the resin film is interposed between the insulating film and the metal oxide;

a light emitting element electrically connected to the first semiconductor element;
and

a light receiving element electrically connected to the second semiconductor element,

wherein a first electric signal is converted to an optical signal in the light emitting element,

wherein the optical signal is converted to a second electric signal in the light receiving element,

wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and

wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

7. (Currently Amended) A semiconductor device formed by detaching a first semiconductor element formed over a first substrate and a second semiconductor element formed over a second substrate and by stacking the first semiconductor element and the second semiconductor element over an element substrate, comprising:

a first insulating film and a second insulating film formed between the first semiconductor element and the second semiconductor element;

a resin film formed between and in contact with the first semiconductor element insulating film and the second semiconductor element insulating film;

~~an interlayer insulating film formed between the first semiconductor element and the resin film;~~

a light emitting element electrically connected to the first semiconductor element;
and
a light receiving element electrically connected to the second semiconductor element,
wherein a first electric signal is converted to an optical signal in the light emitting element,
wherein the optical signal is converted to a second electric signal in the light receiving element,
wherein each of the first semiconductor element and the second semiconductor element has at least one thin film transistor,
wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and
wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

8. (Currently Amended) A semiconductor device formed by detaching a first semiconductor element formed over a first substrate and a second semiconductor element formed over a second substrate and by stacking the first semiconductor element and the second semiconductor element over an element substrate, comprising:

a resin film formed between the first semiconductor element and the second semiconductor element;

an insulating film formed between the first semiconductor element and the second semiconductor element;

a metal oxide partially formed between the first semiconductor element and the second semiconductor element wherein the resin film is interposed between the insulating film and the metal oxide;

a light emitting element electrically connected to the first semiconductor element;
and

a light receiving element electrically connected to the second semiconductor element,

wherein a first electric signal is converted to an optical signal in the light emitting element,

wherein the optical signal is converted to a second electric signal in the light receiving element,

wherein each of the first semiconductor element and the second semiconductor element has at least one thin film transistor,

wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and

wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

9. (Currently Amended) A semiconductor device comprising:

a first thin film integrated circuit including at least one thin film transistor, a light emitting element, ~~an interlayer~~ a first insulating film, and an interface; and

a second thin film integrated circuit including at least one thin film ~~transistor and transistor~~, a light receiving element and a second insulating film, wherein the second thin film integrated circuit is attached to the first thin film integrated circuit with a resin;

wherein the resin is formed between and in contact with the first insulating film and the second insulating film.

wherein a first electric signal is converted to an optical signal in the light emitting element,

wherein the optical signal is converted to a second electric signal in the light receiving element,

wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and

wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

10. (Currently Amended) A semiconductor device comprising:

a first thin film integrated circuit including at least one thin film transistor, a light emitting element, an interlayer insulating film, and an interface;

a second thin film integrated circuit including at least one thin film transistor and a light receiving element, wherein the second thin film integrated circuit is attached to the first thin film integrated circuit with a resin; and

a metal oxide partially formed [[on]] in contact with either surface of each of the first thin film integrated circuit and the second thin film integrated circuit;

wherein a first electric signal is converted to an optical signal in the light emitting element,

wherein the optical signal is converted to a second electric signal in the light receiving element,

wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and

wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

11. (Previously Presented) An electronic equipment comprising the semiconductor device according to any one of claims 1 to 10, wherein the electronic equipment is selected from the group consisting of a mobile phone, an electronic book, a personal computer, an electronic card, and a watch.

12.-15. (Canceled)

16. (Previously Presented) A semiconductor device according to any one of claims 1 and 2, wherein the signal from the thin film transistor is inputted to the light emitting element.

17. (Previously Presented) A semiconductor device according to any one of claims 1 and 2, wherein the signal from the light receiving element is inputted to the thin film transistor.

18. (Previously Presented) A semiconductor device according to any one of claims 3 to 10, wherein the first electric signal from the thin film transistor is inputted to the light emitting element.

19. (Previously Presented) A semiconductor device according to any one of claims 3 to 10, wherein the second electric signal from the light receiving element is inputted to the thin film transistor.

20. (Previously Presented) A semiconductor device according to any one of claims 1 to 10, wherein the light emitting element is an organic light emitting device.

21. (Previously Presented) A semiconductor device according to any one of claims 1 to 10, wherein the electro-luminescent layer has a laminated structure.

22. (Previously Presented) A semiconductor device according to any one of claims 1 to 8, wherein the first semiconductor element has a first crystallized

semiconductor layer, and wherein the second semiconductor element has a second crystallized semiconductor layer.

23. (Previously Presented) A semiconductor device according to any one of claims 1 to 8, further comprising a third semiconductor element comprising at least one thin film transistor,

wherein the first semiconductor element, the second semiconductor element and the third semiconductor element are stacked.

24. (Previously Presented) A semiconductor device according to any one of claims 1 to 8, wherein the first semiconductor element and the second semiconductor element is one selected from the group consisting of a thin film transistor, a memory, a diode, an optoelectric converter, a resistor, a coil, a capacitor and an inductor.

25. (Previously Presented) A semiconductor device according to any one of claims 1 to 8, wherein the first semiconductor element comprises a semiconductor layer.

26. (Currently Amended) A semiconductor device according to any one of claims 1 to 8,

wherein the first semiconductor element comprises a semiconductor layer, and

wherein the electro-luminescent layer is physically separated from the [[first]] semiconductor layer.

27. (Previously Presented) A semiconductor device according to claim 9 or 10, further comprising a third thin film integrated circuit,

wherein the first thin film integrated circuit, second thin film integrated circuit and the third thin film integrated circuit are stacked.

28. (Withdrawn) A display device comprising a plurality of pixels, the display device comprising:

a first circuit comprising a first light emitting device and a first thin film transistor for one of the plurality of pixels over a substrate; and

a second circuit comprising a second light emitting device and a second thin film transistor over the first circuit for the one of the plurality of pixels.

29. (Withdrawn-Currently Amended) A display device comprising a plurality of pixels, one of the plurality of pixels comprising:

a first thin film transistor over [[the]] a substrate;

a first light emitting device over the first thin film transistor;

a second thin film transistor over the first light emitting device; and

a second light emitting device over the second thin film transistor.

30. (Withdrawn) A display device comprising a plurality of pixels, one of the plurality of pixels comprising:

a first layer comprising a first light emitting layer over a substrate; and

a second layer comprising a second light emitting layer over the first layer with an adhesive layer interposed therebetween,

wherein the second light emitting layer capable of emitting color of a different color from the first light emitting layer.

31. (Withdrawn) A display device according to claim 28, wherein the first circuit is stacked over the second circuit with an adhesive layer interposed therebetween.

32. (Withdrawn-Currently Amended) A display device according to claim 29, wherein the second thin film transistor is stacked over the first light emitting ~~element~~ device with an adhesive layer interposed therebetween.

33. (Withdrawn) A display device according to any one of claims 28 to 30, wherein the adhesive layer comprises an organic material.

34. (Withdrawn) A display device according to claim 28 or 29, the first light emitting device emits light of a different color from the second light emitting device.

35. (Withdrawn) A display device according to claim any one of claims 28 to 30, wherein the display device is a full color display device.

36. (Withdrawn) A display device according to claim 28 or 29, wherein an upper electrode of the first light emitting device is a light reflective layer.

37. (Withdrawn) A display device according to claim 28 or 29, wherein an upper electrode of the second light emitting device is a light reflective layer.

38. (Withdrawn-Currently Amended) A display device according to ~~any one of claims 28 to 30~~ claim 28 or 29, wherein at least a part of the second light emitting device overlaps the first light emitting device.